

February 3, 2003

SUMMARY OF PROPOSED NEW GROUND WATER PROTECTION REGULATIONS

Section 6000. Definitions

- Would define “artificial recharge basin” as a surface facility, such as an infiltration pond or basin, or spreading ground specifically designed and managed to increase the infiltration of introduced surface water supplies into a ground water basin. "Artificial recharge basin" would not include ditches, canals or reservoirs designed primarily to transport or store water, or stream channels, lakes, and other naturally occurring water bodies that are not principally managed to recharge ground water.
- Would define “engineered rights of way” as areas within a ground water protection area (GWPA) that are constructed in a way that results in increased runoff and collection of stormwater, such as railroad ballast and berms, public roadsides and highway median strips or similar areas, but not canal or ditch banks or utility lines.
- Would define “evapotranspiration” as the combination of water transpired from vegetation and evaporated from the soil and plant surfaces.
- Would define "field capacity" as the amount of water remaining in soil when the downward water flow due to gravity becomes negligible.
- Would define “leaching GWPA” as sections of land where pesticide residues move from the soil surface downward through the soil matrix with percolating water to ground water, and “runoff GWPA” as sections of land where pesticide residues are carried in runoff water to more direct routes to ground water such as dry or drainage wells, poorly sealed production wells, or soil cracks, or to areas where leaching can occur. Sections of land determined to be GWPA would be identified in a referenced document.
- Would define “net irrigation requirement” as the amount of water needed to bring the soil in the crop root zone to field capacity at the time of irrigation. It can be determined by direct measurements of soil moisture, such as by using tensiometers, or indirect measurements of soil moisture, such as by estimating evapotranspiration that has accumulated since the last irrigation.

Section 6416. Ground Water Protection Restrictions

- A permit would be required for all agricultural, outdoor industrial and outdoor institutional uses of pesticides listed in section 6800(a) when used in GWPA.

Section 6457. Bentazon.

- This section would be created to retain the following two current bentazon use restrictions listed in section 6486.6: the prohibition of use on rice and the prohibition of use in Humboldt and Del Norte counties. (Bentazon would also be subject to the new use restrictions listed in sections 6487.1 – 6487.5)

Section 6486. Restrictions for Ground Water Protection List Pesticides Listed in Section 6800(a)

- For bentazon, the current provisions prohibiting sprinkler irrigation on treated sites and applications between September 1 and March 1 would be deleted.
- Except for bentazon in some cases, all use restrictions for pesticides listed in section 6800(a) would be deleted and replaced by the restrictions specified in sections 6487.1-6487.5.

Section 6487.1. Artificial Recharge Basins

- Use of pesticides listed in sections 6800(a) would be prohibited below the high water line in artificial recharge basins, except under certain conditions.

Section 6487.2. Inside Canal and Ditch Banks

- Use of pesticides 6800(a) would be prohibited below the high water line inside canal and ditchbanks, except under certain conditions.

Section 6487.3. Engineered Rights of Way Within Ground Water Protection Areas

- Use of pesticides registered for agricultural, outdoor industrial and outdoor institutional use containing chemicals listed in section 6800(a) would be prohibited on engineered rights of way in GWPAs unless one of the following management options can be met and is designated by the commissioner on the permit:
 - (a) The property operator complies with section 6487.4, or
 - (b) Any runoff from the treated right of way passes through a fully vegetated area adjacent, and equal in area, to the treated area, or is spread out onto an adjacent unenclosed fallow field that is at least 300 feet long, or
 - (c) The property operator complies with any permit issued pursuant to the storm-water provisions of the federal Clean Water Act pertaining to the treated area.

Section 6487.4. Runoff Ground Water Protection Areas

- In runoff GWPAs, use of pesticides listed in sections 6800(a) would be prohibited unless any one of the following is designated on the permit:

1. Soil is disturbed within 7 days before pesticide is applied (Note: this restriction would not be an option for bentazon, and does not apply to the treated area that is immediately adjacent to the crop row and that does not exceed 33% of the distance between crop rows), or
2. Pesticide is incorporated on at least 90% of the area treated within 7 days after application by mechanical means or sprinkler or low flow irrigation (1/4 - 1 inch), including chemigation if allowed by the label (Note: this restriction would not be an option for bentazon, and does not apply to the treated area that is immediately adjacent to the crop row and that does not exceed 33% of the distance between crop rows), or
3. Pesticide is applied as a band treatment, not to exceed 33% of the distance between crop rows, or
4. Pesticide is applied between April 1 and July 31, or
5. Runoff water is kept on the field or site for 6 months after application, or
6. Runoff water is stored offsite in a basin, under certain conditions, controlled by the property operator for 6 months after application.

Section 6487.5. Leaching Ground Water Protection Areas

- In leaching GWPA's, use of pesticides listed in sections 6800(a) would be prohibited unless any one of the following is designated on the permit:
 1. No irrigation water is applied for 6 months, or
 2. The pesticide is applied so that there is no contact with downward leaching irrigation water (such as to raised beds or berms under furrow irrigation), or
 3. The permittee manages irrigation water so that, for each irrigation applied for 6 months after the pesticide is applied, the net amount of irrigation water applied (as defined) divided by the net irrigation requirement (as defined) is 1.33 or less.

Sections 8487.3-6487.5. Alternative Use and Interim Use in GWPA's

- (1) Upon written request, the Director would be allowed to evaluate and approve use of alternative mitigation measures (to those covered in the regulations) that are based on scientific data demonstrating their effectiveness in reducing movement of pesticides to ground water; or
(2) Upon written request, the Director would be allowed to make a determination to allow the interim unmitigated use of a pesticide containing a chemical listed in

section 6800(a) for a period not to exceed three years. The Director's determination would be based on evidence that the available mitigation measures are not feasible for the specific crop or site and there are no feasible alternatives for a specific crop or site. The formal request would be required to include a study protocol(s) that is acceptable to the Director to develop feasible alternatives or alternate mitigation measures. The study protocol would be required to include a description of the objective, personnel, study plan, sampling methods including number of samples to be analyzed, data analysis, chemical analytical methods including appropriate quality control, timetable, and references, if any. The requestor would be required to submit a written progress report every six months. If the progress report does not support the submitted study protocol(s), or if a report is not submitted, the Director could rescind the determination to allow the use of the pesticide within GWPAs.

(3) The Director would issue a public notice stating the reasons alternative or interim use has been approved under (1) or (2).

Section 6557. Advisories for Groundwater Protection.

- This section would be deleted.

Section 6570. Groundwater Protection Material Requirements.

- This section would be deleted

Section 6609. Wellhead Protection

- Wellhead protection
 1. Except as provided in the next paragraph, the following activities would be prohibited within 100 feet of any well (including domestic, municipal, agricultural, dry or drainage, monitoring or abandoned wells):
 - (a) mixing, loading, and storage of pesticides
 - (b) rinsing of spray equipment or pesticide containers
 - (c) maintenance of spray equipment that could result in spillage of pesticide residues on the soil
 - (d) applications of preemergent herbicides.
 2. Wells are not subject to the requirements in the previous paragraph if they are:
 - (a) sited so that runoff water from irrigation or rainfall does not contact any part of the well including the concrete pad or foundation or
 - (b) protected by a berm that prevents movement of surface runoff water to the well
 3. No application of preemergent herbicides would be allowed inside the berm adjacent to the well.

Section 6800(a) Ground Water Protection List

- Diuron products containing less than 7% diuron and that are applied to foliage would be excluded from the 6800(a) list.

Section 6802. Pesticide Management Zones

- All Pesticide Management Zones would be deleted (and included in the list of GWPAs)